

## CLAIMS

1. A cover (3) for closing a top opening (17) of defined inside dimensions of a thermite reaction chamber (15) of a crucible (2), the cover including for this purpose a bottom peripheral edge (29) suitable for bearing against a top peripheral edge (11) defining said top opening (17), said cover being substantially continuous and said bottom edge (29) having secured thereto a filter lining (35) that is annular, substantially continuous, and suitable for constituting a substantially continuous contact medium between said bottom edge (29) and said top edge (11), the cover being characterized in that it presents sufficient weight ( $P_c$ ) to be able solely under gravity to withstand any gas pressure ( $P_g$ ) that might develop inside said chamber (15) during a thermite reaction.

2. A cover according to claim 1, characterized in that said filter lining (35) is compressible.

3. A cover according to claim 2, characterized in that said filter lining (35) is made of a fiber material selected from the group comprising felts of vitreous synthetic fibers.

4. A cover according to any one of claims 1 to 3, said top edge (11) being substantially plane, the cover being

characterized in that said bottom edge (29) is substantially plane.

5. A cover according to any one of claims 1 to 4, characterized in that it presents a continuous peripheral rim (31) bordering said bottom edge (29) inside said filter lining (35) and projecting downwards relative thereto, said rim (31) presenting outside dimensions that are smaller than said inside dimensions so as to be suitable for engaging with clearance (34) in said opening (17).

6. A cover according to claim 5, characterized in that the filter lining (35) presents inside dimensions that are greater than said outside dimensions so as to leave annular clearance (40) between said rim (31) and the filter lining (35).

7. A cover according to claim 6, characterized in that it presents localized centering means (41) for centering the filter lining (35) relative to said rim (31) so as to ensure that said annular clearance (40) exists.

8. A cover according to claim 6 or claim 7 as dependent on claim 4, characterized in that said bottom edge (29) presents blind cavities (45) that are circumferentially localized and circumferentially distributed, facing which the contact between said bottom edge (29) on said filter lining (35) is locally

interrupted, and in that said cavities (45) communicate with said annular clearance (40), but are closed going away from said rim (31) by the bottom edge (29) of the cover (3) making contact with the filter lining (35).

9. A cover according to any one of claims 1 to 8, characterized in that it is generally in the shape of a pot, defining internally a cavity (52) set back upwards relative to said bottom edge (29).

10. A cover according to any one of claims 1 to 9, characterized in that it is generally in the form of a body of revolution.

11. A cover according to any one of claims 1 to 10, characterized in that it is for single use, being made of a material that is easily destroyed after use, in particular of sand agglomerated by a binder.